RHIC ALCOVES

P.S. and/or what you want to do	Class	What do you Need
Swapping out correctors in the RHIC Tunnel This means verifying the 208Vac is locked out.	0	Safety Glasses Natural Fiber Shirt Natural fiber pants Vrated Gloves and Leather gloves Vrated Meter
Swapping out Gamma-T's in the RHIC Tunnel This means verifying the 208Vac is locked out.	0	Safety Glasses Natural Fiber Shirt Natural fiber pants Vrated Gloves and Leather gloves Vrated Meter
Swapping out RHIC Snakes in the RHIC Tunnel This means verifying the 208Vac is locked out.	0	Safety Glasses Natural Fiber Shirt Natural fiber pants Vrated Gloves and Leather gloves Vrated Meter
Swap out sextupole p.s. Verify 480Vac is locked out inside the p.s.	2*	Safety Glasses Double Layer Switching Hood Hearing Protection Fire Retardant Shirt and Pants Hard hat Vrated Gloves and Leather gloves Vrated Meter

Applying a barrier in front of somethng that is 300Vac or less does not require voltage rated gloves but you should use safety glasses and Natural Fiber shirt and pants. Just avoid contact for 300Vac or less.

If you don't have the required clothing for class 2* then wear the blast suit.

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RHIC ALCOVES

P.S. and/or what you want to do	Class	What do you Need
Do a wiggle test on k-lock cables connected to a QPAIC *There is no Gamma-T p.s. in the rack* *There is no RHIC Snake p.s. in the rack*	0	Safety Glasses Natural Fiber Shirt Natural fiber pants
Do a wiggle test on k-lock cables connected to a QPAIC *There is a Gamma-T p.s. in the rack or* *There is a RHIC Snake p.s. in the rack*		

There are 3 options for doing this

		Class	What do you Need
1	Lock out 208Vac and put up a barrier so you don't have to verify or	0	Safety Glasses
2	You don't have to lock out Gamma-T or snake but you must put up a barrier or		Natural Fiber Shirt Natural fiber pants
3	Lock out and verify 208Vac on Gamma-T or Snake p.s.	0	Safety Glasses Natural Fiber Shirt Natural fiber pants Vrated Gloves and Leather gloves Voltage Rated Meter

Applying a barrier in front of somethng that is 300Vac or less does not require voltage rated gloves but you should use safety glasses and Natural Fiber shirt and pants. Just avoid contact for 300Vac or less.

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RHIC ALCOVES

P.S. and/or what you want to do	Class	What do you Need
Swap out any RHIC p.s. Control chassis in an alcove rack. For example, Node card, QPAIC, etc.... *There is no Gamma-T p.s. in the rack* *There is no RHIC Snake p.s. in the rack* Pulling the ac plug on the chassis would be considered verficication 110vac is locked out	0	Safety Glasses Natural Fiber Shirt Natural fiber pants
Swap out any RHIC p.s. Control chassis in an alcove rack. For example, Node card, QPAIC, etc.... *There is a Gamma-T p.s. in the rack or* *There is a RHIC Snake p.s. in the rack* Pulling the ac plug on the chassis would be considered verficication 110vac is locked out		

There are 3 options for doing this:

		Class	What do you Need
1	Lock out 208Vac and put up a barrier so you don't have to verify or	0	Safety Glasses
2	You don't have to lock out Gamma-T or snake but you must put up a barrier or		Natural Fiber Shirt Natural fiber pants
3	Lock out and verify 208Vac on Gamma-T or Snake p.s.	0	Safety Glasses Natural Fiber Shirt Natural fiber pants Vrated Gloves and Leather gloves Voltage Rated Meter

Applying a barrier in front of somethng that is 300Vac or less does not require voltage rated gloves but you should use safety glasses and Natural Fiber shirt and pants. Just avoid contact for 300Vac or less.

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RHIC TUNNEL

P.S. and/or what you want to do	Class	What do you Need
Swapping out a magnet tree heater This means verifying the 110Vac circuit breaker is locked out.	0	Safety Glasses Natural Fiber Shirt Natural fiber pants Vrated Gloves and Leather gloves Vrated Meter

Applying a barrier in front of somethng that is 300Vac or less does not require voltage rated gloves but you should use safety glasses and Natural Fiber shirt and pants. Just avoid contact for 300Vac or less.

If you don't have the required clothing for class 2* then wear the blast suit.

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	P.S. and/or what you want to do	Class	What do you Need
A	Working in 480Vac compartment of a Dynapower p.s. This means verifying the 480Vac is locked out. 1002B max short circuit current for 480vac is >10kA	2*	Safety Glasses Double Layer Switching Hood Hearing Protection Fire Retardant Shirt and Pants Vrated Gloves and Leather gloves Vrated Meter
B	Swapping out a 208Vac input Quad IR Nested p.s. or rack mounted quad p.s. QPA This means verifying the 208Vac is locked out. Lock out the quad main p.s.'s which have a max voltage of 90Vac. (refer to J for class hazard and short procedure for the main p.s.'s)	0	Safety Glasses Natural Fiber Shirt Natural fiber pants Vrated Gloves and Leather gloves Vrated Meter
C	Swapping out a 208Vac input Quad IR tq p.s. or Quad IR tq qpa (not nested) This means verifying the 208Vac is locked out.	0	Safety Glasses Natural Fiber Shirt Natural fiber pants Vrated Gloves and Leather gloves Vrated Meter

P.S. and/or what you want to do

Swap out any RHIC p.s. Control chassis in Rack that contains a nested IR p.s.
For example, Node card, QPAIC, etc.…
If there is no Suncraft IR p.s. in the rack.
Pulling the ac plug on the chassis would be considered verification 110vac is locked out (after the dc buss is barriered or mains are locked out)
The dynapower p.s.'s have a covered 208Vac TB strip, no need to lock out the 208Vac, unless you want to.

	There are 3 options for doing this	Class	What do you Need
D 1 2	Lock out the Quad mains (see J) and put up a barrier over the DC buss in the rack you are in so you don't have to verify or You don't have to lock out the Quad mains but you must put up a barrier up over the DC buss in the rack you are in or	0	Safety Glasses Natural Fiber Shirt Natural fiber pants
E 3	Lock out the Quad Mains (see J) (90Vdc Max)	0	Safety Glasses Natural Fiber Shirt Natural fiber pants

Swap out any RHIC p.s. Control chassis in Rack that contains a nested IR p.s.
For example, Node card, QPAIC, etc.…
If there is a Suncraft IR p.s. in the rack.
Pulling the ac plug on the chassis would be considered verification 110vac is locked out (after the dc buss and suncraft 208Vac TB strip is barriered or mains and Suncraft are locked out)
The dynapower p.s.'s have a covered 208Vac TB strip, no need to lock out the 208Vac, unless you want to.

	There are 3 options for doing this	Class	What do you Need
F 1 2	Lock out the Quad mains (see J) and the Suncraft p.s. 208Vac and put up a barrier over the DC buss and Suncraft 208Vac TB strip so you don't have to verify or You don't have to lock out the Quad mains or the Suncarft p.s. but you must put up a barrier up over the DC buss and the Suncraft 208Vac TB strip in the rack you are in or	0	Safety Glasses Natural Fiber Shirt Natural fiber pants
G 3	Lock out the Quad Mains (see J) (90Vdc Max) and the Suncraft p.s. 208Vac and verify the Suncraft 208Vac is locked out	0	Safety Glasses Natural Fiber Shirt Natural fiber pants Vrated Gloves and Leather gloves Voltage Rated Meter

	P.S. and/or what you want to do	Class	What do you Need
H	Do a wiggle test on k-lock cables connected to a QPAIC, with the link up. *If there is no Suncraft IR p.s. in the rack.* You cannot lock out the Quad mains (because the link must stay up) but you must put up a barrier over all the DC busses. The dynapower p.s.'s have a covered 208Vac TB strip, no need to lock out the 208Vac, unless you want to.	0	Safety Glasses Natural Fiber Shirt Natural fiber pants
I	Do a wiggle test on k-lock cables connected to a QPAIC, with the link up. *If there is a Suncraft IR p.s. in the rack.* You cannot lock out the Quad mains (because the link must stay up) but you must put up a barrier over all the DC busses. You cannot lock out the Suncraft p.s. (because the link must stay up) but you must put up a barrier over the 208Vac. The dynapower p.s.'s have a covered 208Vac TB strip, no need to lock out the 208Vac, unless you want to.	0	Safety Glasses Natural Fiber Shirt Natural fiber pants
J	Lock out the 480V switches for the Blue or Yellow Main Quad p.s.'s or the Dipole flattop p.s.'s First the link must be down. Second turn off the control power to the 2 p.s.'s you are locking out Third go to the 480V switches and lock them out. Take the kirklock key with you. Fourth go back to the front of the main p.s. and verify you cannot turn it on and the voltages on the ac meters are zero. (verifies it is ok to work on the DC side)	0	Safety Glasses Natural Fiber Shirt Natural fiber pants
K	Lock out the 480V switches for the Dipole ramp p.s.'s First the link must be down. Second turn off the control power to the dipole ramp p.s. you are locking out Third go to the tall 480V switch (labeled SYDR or SBDR)and lock it out. Take the kirklock key with you. Fourth go back to the front of the main p.s. and verify you cannot turn it on and the voltages on the ac meters are zero. (verifies it is ok to work on the DC side)	1	Safety Glasses Fire retardant Shirt Natural fiber pants Vrated Gloves and Leather gloves Hard Hat

Applying a barrier in front of somethng that is 300Vac or less does not require voltage rated gloves but you shuld use safety glasses and
Natural Fiber shirt and pants. Just avoid contact for 300Vac or less when applying barrier.

If you don't have the required clothing for class 2* then wear the blast suit.

If you don't have the fire retardant shirt for class 1 then use the jacket from the blast suit.

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4B, 6B, 8B, 10A, 12A

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	P.S. and/or what you want to do	Class	What do you Need
A	Working in 480Vac compartment of a Dynapower p.s. This means verifying the 480Vac is locked out. 1002B max short circuit current for 480vac is >10kA	2*	Safety Glasses Double Layer Switching Hood Hearing Protection Fire Retardant Shirt and Pants Vrated Gloves and Leather gloves Vrated Meter
B	Swapping out a 208Vac input Quad IR Nested p.s. or rack mounted quad p.s. QPA This means verifying the 208Vac is locked out. Lock out the quad main p.s.'s which have a max voltage of 90Vac. (refer to J for class hazard and short procedure for the main p.s.'s)	1	Safety Glasses Fire retardant Shirt Natural fiber pants Vrated Gloves and Leather gloves Hard Hat
C	Swapping out a 208Vac input Quad IR tq p.s. or Quad IR tq qpa (not nested) This means verifying the 208Vac is locked out.	1	Safety Glasses Fire retardant Shirt Natural fiber pants Vrated Gloves and Leather gloves Hard Hat

P.S. and/or what you want to do

Swap out any RHIC p.s. Control chassis in Rack that contains a nested IR p.s.
For example, Node card, QPAIC, etc.…
If there is no Suncraft IR p.s. in the rack.
Pulling the ac plug on the chassis would be considered verification 110vac is locked out (after the dc buss is barriered or mains are locked out)
The dynapower p.s.'s have a covered 208Vac TB strip, no need to lock out the 208Vac, unless you want to.

	There are 3 options for doing this	Class	What do you Need
D 1 2	Lock out the Quad mains (see J) and put up a barrier over the DC buss in the rack you are in so you don't have to verify or You don't have to lock out the Quad mains but you must put up a barrier up over the DC buss in the rack you are in or	0	Safety Glasses Natural Fiber Shirt Natural fiber pants
E 3	Lock out the Quad Mains (see J) (90Vdc Max)	0	Safety Glasses Natural Fiber Shirt Natural fiber pants

Swap out any RHIC p.s. Control chassis in Rack that contains a nested IR p.s.
For example, Node card, QPAIC, etc.…
If there is a Suncraft IR p.s. in the rack.
Pulling the ac plug on the chassis would be considered verification 110vac is locked out (after the dc buss and suncraft 208Vac TB strip is barriered or mains and Suncraft are locked out)
The dynapower p.s.'s have a covered 208Vac TB strip, no need to lock out the 208Vac, unless you want to.

	There are 3 options for doing this	Class	What do you Need
F 1 2	Lock out the Quad mains (see J) and the Suncraft p.s. 208Vac and put up a barrier over the DC buss and Suncraft 208Vac TB strip so you don't have to verify or You don't have to lock out the Quad mains or the Suncraft p.s. but you must put up a barrier up over the DC buss and the Suncraft 208Vac TB strip in the rack you are in or	0	Safety Glasses Natural Fiber Shirt Natural fiber pants
G 3	Lock out the Quad Mains (see J) (90Vdc Max) and the Suncraft p.s. 208Vac and verify the Suncraft 208Vac is locked out	1	Safety Glasses Fire retardant Shirt Natural fiber pants Vrated Gloves and Leather gloves Voltage rated meter Hard Hat

	P.S. and/or what you want to do	Class	What do you Need
H	Do a wiggle test on k-lock cables connected to a QPAIC, with the link up. *If there is no Suncraft IR p.s. in the rack.* You cannot lock out the Quad mains (because the link must stay up) but you must put up a barrier over all the DC busses. The dynapower p.s.'s have a covered 208Vac TB strip, no need to lock out the 208Vac, unless you want to.	0	Safety Glasses Natural Fiber Shirt Natural fiber pants
I	Do a wiggle test on k-lock cables connected to a QPAIC, with the link up. *If there is a Suncraft IR p.s. in the rack.* You cannot lock out the Quad mains (because the link must stay up) but you must put up a barrier over all the DC busses. You cannot lock out the Suncraft p.s. (because the link must stay up) but you must put up a barrier over the 208Vac. The dynapower p.s.'s have a covered 208Vac TB strip, no need to lock out the 208Vac, unless you want to.	0	Safety Glasses Natural Fiber Shirt Natural fiber pants
J	Lock out the 480V switches for the Blue or Yellow Main Quad p.s.'s or the Dipole flattop p.s.'s First the link must be down. Second turn off the control power to the 2 p.s.'s you are locking out Third go to the 480V switches and lock them out. Take the kirklock key with you. Fourth go back to the front of the main p.s. and verify you cannot turn it on and the voltages on the ac meters are zero. (verifies it is ok to work on the DC side)	0	Safety Glasses Natural Fiber Shirt Natural fiber pants
K	Lock out the 480V switches for the Dipole ramp p.s.'s First the link must be down. Second turn off the control power to the dipole ramp p.s. you are locking out Third go to the tall 480V switch (labeled SYDR or SBDR)and lock it out. Take the kirklock key with you. Fourth go back to the front of the main p.s. and verify you cannot turn it on and the voltages on the ac meters are zero. (verifies it is ok to work on the DC side)	1	Safety Glasses Fire retardant Shirt Natural fiber pants Vrated Gloves and Leather gloves Hard Hat

Applying a barrier in front of somethng that is 300Vac or less does not require voltage rated gloves but you shuld use safety glasses and
Natural Fiber shirt and pants. Just avoid contact for 300Vac or less when applying barrier.

If you don't have the required clothing for class 2* then wear the blast suit.

If you don't have the fire retardant shirt for class 1 then use the jacket from the blast suit.